

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
10 September 2004 (10.09.2004)

PCT

(10) International Publication Number
WO 2004/075777 A3

(51) International Patent Classification⁷: **A61F 2/38**
(21) International Application Number:
PCT/US2004/005539

(22) International Filing Date: 24 February 2004 (24.02.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/373,463 24 February 2003 (24.02.2003) US

(71) Applicant (for all designated States except US):
ARTHROSURFACE, INCORPORATED [US/US];
28 Forge Parkway, Franklin, MA 02038 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **EK, Steven W.**
[US/US]; 49 Powder Hill Road, Bolton, MA 01740 (US).

(74) Agents: **GROSSMAN, Steven J.**, et al.; Grossman Tucker
Perreault & Pfeleger, PLLC, 55 South Commercial Street,
Manchester, NH 03101 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

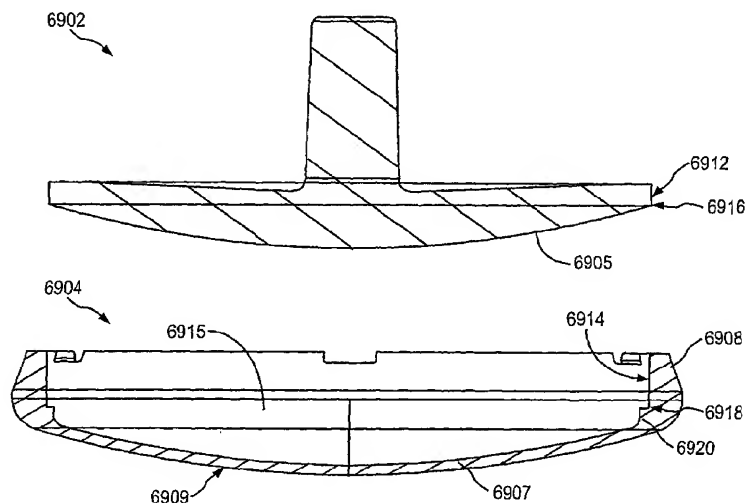
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR JOINT RESURFACE REPAIR



(57) Abstract: An implant for installation into a portion of an articular surface includes an implant shell component having a proximal load bearing wall with an outer proximal load bearing surface. A peripheral rim extending distally relative to the load bearing wall may provide a bone-facing distal pocket on the shell component. An inner implant component may be received in the bone-facing distal pocket of the implant such that a proximal surface of the inner component is spaced apart from a distal surface of the load bearing wall. The contour of the load bearing surface may be based on an original surface contour of an articular surface, and the load bearing wall of the shell component may be a deflectable wall, so that the load bearing surface can deflect under an applied load. The space between the load bearing wall and the inner implant may include a compressible fluid such as elastomeric gels.



WO 2004/075777 A3



(88) Date of publication of the international search report:
10 March 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/05539

A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : A61F 2/38 US CL : 623/20.14 According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S. : 623/20.14, 20.15, 20.11, 20.23, 20.27, 20.29, 20.31, 18.11, 19.11, 20, 20.21, 20.18 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) East -- implant, component		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,019,104 A (WHITESIDE ET AL) 28 MAY 1991 (28.05.1991), see entire document.	1-21
X	US 5,383,937 A (MIKHAIL) 24 JANUARY 1995 (24.01.1995), see entire document.	1-21
X	US 5,702,467 A (GABRIEL ET AL) 30 DECEMBER 1997 (30.12.1997), see entire document.	1-21
X	US 5,480,443 A (ELIAS) 02 JANUARY 1996 (02.01.1996), see entire document.	1-21
X	US 6,315,798 B1 (ASHBY ET AL) 13 NOVEMBER 2001 (13.11.2001), see entire document.	1-21
X	US 5,702,465 A (BURKINSHAW) 30 DECEMBER 1997 (30.12.1997), see entire document.	1-21
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.		
* Special categories of cited documents:		
"A"	document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E"	earlier application or patent published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O"	document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P"	document published prior to the international filing date but later than the priority date claimed	
Date of the actual completion of the international search 31 August 2004 (31.08.2004)		Date of mailing of the international search report 30 DEC 2004
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230		Authorized officer Linda J Sholl <i>L. Hurley</i> Telephone No. (703) 308-0861